

**REMARKS**

Applicants acknowledge receipt of an Office Action dated August 30, 2005. In this response Applicants have amended claim 5. Claims 11 and 12 have been added. Following entry of these amendments, claims 1-12 are pending in the application.

Reconsideration of the present application is respectfully requested in view of the foregoing amendments and the remarks which follow.

**Information Disclosure Statement**

During a review of their file, Applicant has noted that the PTO has not yet acknowledged acceptance of the Information Disclosure Statement submitted on February 5, 2004. Applicant respectfully requests that the PTO acknowledge acceptance and consideration of the Information Disclosure Statement in its next communication.

**Rejections Under 35 U.S.C. § 112**

On page 2 of the Office Action, the PTO has rejected claim 8 under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite.

With regard to the term “monolithic” and the reference to “liter. . . catalyst” in claim 8, Applicant wishes to direct the PTO’s attention to page 13, lines 1-20 of the specification. In view of this passage, Applicant submits that the term “monolithic” and the reference to “liter. . . catalyst” is clear and definite within the meaning of §112, 2<sup>nd</sup> paragraph.

In view of the foregoing, Applicant respectfully requests reconsideration and withdrawal of the outstanding rejection under §112.

**Rejections Under 35 U.S.C. § 102**

On page 2 of the Office Action, the PTO has rejected claims 1-2 and 9 under 35 U.S.C. § 102(a) as allegedly being anticipated by U.S. Patent 6,548,034 to Takamura *et al.* (hereafter “Takamura”). Applicant respectfully traverses this rejection for at least the reasons set forth below.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v.*

*Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). See generally MPEP §2131.

Here, Takamura fails to disclose “a carbon monoxide reducing catalyst in which a transition metal element is included and a carbon monoxide adsorption amount is adjusted from 0.1 to 3 mL/cat.g” as recited in independent claim 1.

Applicant acknowledges the PTO’s statement, on page 2 of the Office Action, that “[a]s the Takamura ‘034 catalyst is capable of space velocities and reaction temperatures within the claimed range, it is inherent that the Takamura ‘034 catalyst also possesses the claimed carbon monoxide adsorption amount adjusted from 0.1 to 3 mL/cat.g.” Applicant further acknowledges the PTO’s conclusion, in the following sentence, that “the Takamura ‘034 process anticipates every limitation of claim 1.” Applicant respectfully disagrees with these statements.

As shown in the attached translation from the Encyclopedia of Catalyst (November 1, 2000) which describes measurement of the diameter of metallic particles, the carbon monoxide adsorption amount does not relate to the space velocity and temperature of the mixed gas supplied to the carbon monoxide removing device. The carbon monoxide adsorption amount relates to a dispersity and an average particle size of the transition metal element and/or noble metal element.

In fact, the Encyclopedia of Catalyst states that “[b]y measuring an amount of adsorbed gas per unit weight of a supported metal catalyst, the total number of surface metal atoms is calculated from the number of gas molecules adsorbed to one surface metal atom (stoichiometry of adsorbed gas).” The Encyclopedia of Catalyst continues, stating that “[f]rom this value, the dispersity and average particle size of the metal can be calculated.” (Emphasis added). Thus, the carbon monoxide adsorption amount relates to the dispersity and the average particle size of the metal.

In view of these comments, Applicant submits that the PTO’s statement that “[a]s the Takamura ‘034 catalyst is capable of space velocities and reaction temperatures within the claimed range, it is inherent that the Takamura ‘034 catalyst also possesses the claimed carbon monoxide adsorption amount adjusted from 0.1 to 3 mL/cat.g” is incorrect and that the PTO’s conclusion based upon this statement is improper and should be withdrawn.

In view of the foregoing, Applicant respectfully requests reconsideration and withdrawal of the outstanding rejection under §102.

### **Rejections Under 35 U.S.C. § 103**

On page 4 of the Office Action, the PTO has rejected claims 1, 3-5, 8, and 10 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Takamura. In addition, on page 5 of the Office Action, the PTO has rejected claims 1, 3, and 6-7 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Takamura in view of U.S. Patent 6,913,739 to Shore *et al.* (hereafter “Shore”). Applicant respectfully traverses these rejections for the reasons set forth below.

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP §2143.03.

Here, as discussed above, Takamura fails to teach or suggest “a carbon monoxide reducing catalyst in which a transition metal element is included and a carbon monoxide adsorption amount is adjusted from 0.1 to 3 mL/cat.g” as recited in independent claim 1. Furthermore, and in addition to the technical arguments set forth above, Applicant notes that the PTO’s obviousness rejection based upon Takamura appears to impermissibly rely upon alleged “inherent” disclosure in Takamura. Stated another way, the PTO cannot rely on the doctrine of inherency in a Section 103 context, *i.e.*, that which may be inherent is not necessarily known, and obviousness can only be based on what is known. In fact, inherency can be said to be the antithesis of obviousness.

Shore adds nothing to resolve these deficiencies in Takamura. Thus, no combination of Takamura and Shore can properly teach or suggest “a carbon monoxide reducing catalyst in which a transition metal element is included and a carbon monoxide adsorption amount is adjusted from 0.1 to 3 mL/cat.g.”

For at least this reason, Applicants submit that the outstanding rejection of claim 1 is improper and should be withdrawn.

If an independent claim is nonobvious under §103, then any claim depending therefrom is nonobvious. *In re Fine*, 5 USPQ2d 1596 (Fed. Cir. 1988). See MPEP 2143.03.

Thus, Applicants submit that claims 2-11, which ultimately depend from independent claim 1, are also non-obvious.

Finally, Applicant notes that the PTO has taken “official notice” with respect to certain dependent claims. For the sake of establishing a complete record, Applicant respectfully requests that the PTO cite references to substantiate its assertions that the subject matter of certain dependent claims is old and well known.

In view of the foregoing, Applicant respectfully requests reconsideration and withdrawal of the outstanding rejections under §103.

**Newly Added Claim**

In this response, Applicants have added independent claim 12. Applicants submit that none of the outstanding rejections is applicable to claim 12 inasmuch as claim 12 recites “a carbon monoxide concentration reducing catalyst in which a transition metal element is included and a carbon monoxide adsorption amount is adjusted from 0.1 to 3 mL/cat.g.”

**CONCLUSION**

In view of the foregoing amendments and remarks, Applicants respectfully submit that all of the pending claims are now in condition for allowance. An early notice to this effect is earnestly solicited. If there are any questions regarding the application, the Examiner is invited to contact the undersigned at the number below.

Respectfully submitted,

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The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.